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EXAMINER				
LEE, CHUN KUAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/588,879

**Applicant(s)**

HOFFMAN ET AL.

**Examiner**

Chun-Kuan Lee

**Art Unit**

2181

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-21 and 31-40 is/are pending in the application.
- 4a) Of the above claim(s) 32-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-21 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### RESPONSE TO ARGUMENTS

1. Applicant's arguments filed 12/21/2009 have been fully considered but they are not persuasive. Currently, claims 2-3 and 22-30 are cancelled; claims 32-40 are withdrawn; and claims 1, 4-21 and 31 are pending for examination.
2. In response to applicant's arguments (on pages 8-10) with regard to the independent claims 1, 20-21 and 31 rejected under 35 U.S.C. 103(a) that the combination of the references does not teach/suggest the claimed feature "examining a security policy contained entirely within the target object" because neither references determines security measure at a target object as both references disclose a security determination is made elsewhere by consulting a resource external to the target, wherein Colburn discloses incorporating an owner identifier into objects requiring:
  - consulting the user of the computer (col. 12, l. 59 to col. 13, l. 15); or
  - consulting a remote server for security information (col. 13, l. 25 to col. 14, l. 24);and Colburn's security measure are determined by "attribute obtained from the call stack to determine whether particular conditions are met to permit an accessing instance to access a particular target (col. 8, ll. 65-67); therefore, Colburn's security structure and functionality is not contained at the target object but elsewhere; and Scheifler teaches security determination occurs at a permission object; applicant's arguments have fully been considered, but are not found to be persuasive.

Please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As the examiner is relying on Colburn, not Schiefler, for the teaching of "examining a security policy contained entirely within the target object".

The examiner respectfully disagrees applicant's above analysis of Colburn, because first of all the examiner is not fully clear regarding applicant's analysis of Colburn's (col. 12, l. 59 to col. 13, l. 15) disclosure for consulting the user of the computer, Colburn does disclose that the security mechanisms and method are applicable to objects operating within a single computer system (col. 13, ll. 25-26), however Colburn also discloses that the security information (Fig. 8, ref. 184, 194) is contained entirely within the target object (Fig. 8, ref. 160); secondly, with regard to applicant's analysis of Colburn's consulting a remote server for security information (col. 13, l. 25 to col. 14, l. 24), Colburn does teach that when the client computer want to access the target object at the remote server, the remote server consults the security information (Fig. 8, ref. 184, 194) contained entirely within the target object (Fig. 8, ref. 160) with regard to the access request (i.e. Colburn does teach examining a security policy contained entirely within the target object); and finally, the examiner is not fully clear how Colburn's "attribute obtained from the call stack to determine whether particular conditions are met to permit an accessing instance to access a particular target (col. 8, ll. 65-67) suggests that examining the security policy is not contained

entirely within the target object, especially when Colburn does teach that the security information (e.g. target access constraints 184 and access authorization 194 of Fig. 8) contained entirely within the target object (Fig. 8, ref. 160) is utilized for determining access authorization to the target object (Fig. 7A-7B; Fig. 8; col. 1, l. 12 to col. 3, l. 45; col. 7, ll. 26-52 and col. 11, l. 25 to col. 12, l. 58). In conclusion, by modifying Scheifler's permission implementation with Colburn's target security scheme, the resulting combination of the reference does teach applicant's claimed feature of "examining a security policy contained entirely within the target object".

Additionally, it appears the applicant's determination of the security measure at a target object is supported by applicant's Specification in paragraph [0058] (base on applicant's arguments on page 10) and is implemented by checking its own security policies rather than a central authority (applicant's Specification's on page 21, lines 9-12); wherein the combination of the references teaches checking the target object's (Colburn, Fig. 8, ref. 160) own security policies (Colburn, Fig. 8, ref. 184, 194) for determining a security measure (e.g. Scheifler's permission implementation and Colburn's target security scheme).

3. In response to applicant's arguments (on page 10) with regard to the independent claims 1, 20-21 and 31 are rejected under 35 U.S.C. 103(a) that the combination of the references does not teach/suggest the claimed feature "determining access to other interfaces" because Scheifler discloses implying permission and in accordance to applicant's specification (e.g. paragraph [0050]), access to one interface

does not "imply" access to another interface; applicant's arguments have fully been considered, but are not found to be persuasive.

The examiner respectfully disagrees, because Scheifler implied permission does teach applicant's claimed feature, as Scheifler discloses determining access to other interface (e.g. access to write to any specific file in a directory) is based on call to the first interface (e.g. access to write to any file in that directory) (col. 12, ll. 46-55), as the determination to access/write to any specific file is based on (implied by) access/write to any file in that directory (e.g. call to the first instance). Additionally, the examiner is not sure where in applicant specification (e.g. paragraph [0050]) teaches that access to one interface does not "imply" access to another interface, as the examiner is unable to find "imply" within the cited paragraph of applicant's specification.

4. In response to applicant's arguments (on page 10) with regard to the independent claims 1, 20-21 and 31 are rejected under 35 U.S.C. 103(a) that the combination of the references does not teach/suggest the claimed feature "target object determines whether an external object access to a particular interface based on a call to the first interface" (e.g. applicant's Specification paragraph [0058]) because the combination of the references teaches "the target object implementing access authorization in association with implied permission to other interface"; applicant's arguments have fully been considered, but are not found to be persuasive.

Please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

*Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). To further clarify the examiner rational, the references are relied as following for the teaching of the above claimed feature:

Scheifler teaches determining whether determine whether an external thread (Fig. 6, ref. 6200) has access to a particular interface (e.g. access to write to any specific file in a directory) based on a call to the first interface (e.g. access to write to any file in that directory) (Fig. 1; Fig. 4-5; col. 4, l. 51 to col. 5, l. 3; col. 9, l. 11 to col. 14, l. 38; and col. 11, l. 20 to col. 13, l. 45).

Colburn teaches receiving a call from an object and checking target object's (Fig. 8, ref. 160) own security information (Fig. 8, ref. 184, 194) to determine access authorization of the call (Fig. 7A-7B; Fig. 8; col. 1, l. 12 to col. 3, l. 45; col. 7, ll. 26-52 and col. 11, l. 25 to col. 12, l. 58), as the security information (Fig. 8, ref. 184, 194) is contained entirely within the target object (Fig. 8, ref. 160) and it is based on those security information (Fig. 8, ref. 184, 194) access authorization is granted or denied.

By modifying Scheifler with Colburn's target security scheme, the resulting combination of the references further teaches, receiving the call from the external object and determining whether the external object has access authorization to the particular interface base on the call to the first interface by checking the target object's own security policies; therefore, the combination of the references does teach the above claimed feature.

**I. ELECTION / RESTRICTION**

5. Applicant's election of Specie I (claims 1, 4-21 and 31) in the reply filed on 12/21/2009 (i.e. based on the election during the telephone conversation on 08/20/2009) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

6. This application contains claims 32-39 drawn to an invention nonelected with traverse in the reply filed on 12/21/2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

**II. REJECTIONS BASED ON PRIOR ART**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-21 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheifler et al. (US Patent 6,138,238) in view of Colburn et al. (US Patent 6,173,404).



8. As per claims 1, 20-21 and 31, Scheifler teaches a method, a system and a computer readable storage medium storing instructions for controlling a computer device for controlling access to an object in an operating system, the method, system and computer readable storage medium comprising:

a module configured means for receiving a call from an external thread (Fig. 6, ref. 6200) to a first interface (e.g. write to any file in a directory, such as "c:/") of a target object (Fig. 6, ref. 4500-1) (Fig. 1; Fig. 4-5; col. 4, l. 51 to col. 5, l. 3 and col. 9, l. 11 to col. 14, l. 38);

a module configured with means for determining whether the external thread has access to other interfaces (e.g. write to any specific file in the directory, such as "c:/thisfile") of the target object based on the call received at the first interface (Fig. 4-5 and col. 11, l. 20 to col. 13, l. 45), wherein the determination is in association with implied permission; and

a module configured with means for to grant access to the other interfaces according to the determination (Fig. 4-5 and col. 11, l. 20 to col. 13, l. 45).

Scheifler does not expressly teach the method, system and computer readable medium comprising: wherein the call from an object; the target object determining access to the other interfaces; and wherein the determination step comprising means for examining a security policy contained entirely within the target object.

Colburn teaches the method, system and computer readable medium comprising: a call received from an object (Fig. 5, ref. 100); a target object (Fig. 8, ref. 160, 184, 194) determining (at the target object) access to the other interfaces; and

wherein the determination step comprising means for examining a security policy (Fig. 8, ref. 184, 194) contained entirely within the target object (Fig. 8, ref. 160) (Fig. 7A-7B; Fig. 8; col. 1, l. 12 to col. 3, l. 45; col. 7, ll. 26-52 and col. 11, l. 25 to col. 12, l. 58), by combination Colburn's target security scheme with Scheifler's permission implementation, the resulting combination further teaches the target object implementing access authorization in association with implied permission to other interfaces, as the target object determines the access authorization of the received call to the other interfaces by examining the target object's own security policies.

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Colburn's inter-object security scheme into Scheifler's object for the benefit of implementing a more robust security scheme between objects (Colburn, col. 3, ll. 34-37) to obtain the invention as specified in claims 1, 20-21 and 31.

9. As per claim 4, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein Scheifler further teaches the method further comprising determining whether the external object and the target object operate in a same process (e.g. same class of valid digital signature or not) (Scheifler, col. 9, l. 52 to col. 11, l. 19).

10. As per claim 5, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein Scheifler further teaches the method comprising wherein determining whether the external object has access to the other interfaces of the target object further comprises: identifying the other interfaces of the target object that can be

accessed when the first interface is being requested by the external object (Scheifler, col. 11, l. 20 to col. 13, l. 45), as the other interfaces must be identified in order to proper grant the permission via the implied permission.

11. As per claim 6, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method further comprising determining a first process of the target object (Scheifler, col. 9, l. 52 to col. 11, l. 19 and Colburn, Fig. 8; Fig. 10; col. 1, l. 12 to col. 3, l. 45), such as determining whether the target object's first process corresponds to either valid digital signature with known keys or digital signature that cannot be verified thus a default key is utilized.

12. As per claim 7, Scheifler and Colburn teach all the limitation of claim 6 as discussed above, wherein both further teach the method further comprising determining a second process of the external object (Scheifler, col. 9, l. 52 to col. 11, l. 19 and Colburn, Fig. 8; Fig. 10; col. 1, l. 12 to col. 3, l. 45), such as determining whether the external object's second process corresponds to either valid digital signature with known keys or digital signature that cannot be verified thus a default key is utilized.

13. As per claim 8, Scheifler and Colburn teach all the limitation of claim 7 as discussed above, wherein both further teach the method further comprising performing a cross-process communication between the target object and the external object (Scheifler, col. 9, l. 52 to col. 11, l. 19 and Colburn, Fig. 8; Fig. 10; col. 1, l. 12 to col. 3,

l. 45; col. 13, l. 44 to col. 14, l. 34), such as allowing restrictive access to the target object as the target object is under valid digital signature process and the external object is not under valid digital signature process.

14. As per claim 9, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method further comprising securing a channel for each interface of the target object (Scheifler, col. 9, l. 52 to col. 11, l. 19 and Colburn, Fig. 8; Fig. 10; col. 1, l. 12 to col. 3, l. 45; col. 13, l. 44 to col. 14, l. 34), as the channel is secured via a cryptographic key over a network between client and server.

15. As per claim 10, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method comprising wherein determining whether the external object has access to the other interfaces of the target object further comprises analyzing access constraints within the target object (Scheifler, col. 11, l. 20 to col. 13, l. 45 and Colburn, Fig. 7A-7B; Fig. 8; col. 13, l. 44 to col. 14, l. 34), as the analyzing of the implied permission is located within the target object.

16. As per claim 11, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method further comprising analyzing interface access data stored within the target object (Scheifler, col. 11, l. 20 to col. 13, l. 45 and Colburn, Fig. 7A-7B; Fig. 8; col. 13, l. 44 to col. 14, l. 34).

17. As per claim 12, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method further comprising determining whether the target object and the external object are in a same protection domain (Scheifler, Fig 4; col. 11, l. 20 to col. 13, l. 45 and Colburn, Fig. 8).

18. As per claim 13, Scheifler and Colburn teach all the limitation of claim 12 as discussed above, wherein both further teach the method comprising wherein the protection domain is a process (Scheifler, Fig 4 and col. 9, l. 52 to col. 13, l. 45 and Colburn, Fig. 8), wherein the process is associated with valid digital signature and un-validated digital signature.

19. As per claim 14, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein Colburn further teaches the method comprising wherein the target object sets the target object's own security policy (Colburn, Fig. 8), the target object sets the target object's own security policy as the access constraints and access authorization resides within the target object.

20. As per claim 15, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein Scheifler further teaches the method comprising wherein determining whether the external object has access to the other interfaces further comprises determining capabilities of the external object (Scheifler, col. 9, l. 52 to col.

13, l. 45), as the capability corresponds to the capability of transferring data along with the know key or without the know key.

21. As per claim 16, Scheifler and Colburn teach all the limitation of claim 15 as discussed above, wherein Colburn further teaches the method comprising further comprising mapping capabilities of the external object to the other interfaces of the target object (Scheifler, col. 9, l. 52 to col. 13, l. 45), such as mapping the capability of transferring data with the know key to other interfaces for grater access.

22. As per claim 17, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein both further teach the method comprising wherein the target object and the external object are created using a same methodology (e.g. object oriented by Java) (Scheifler, col. 9, l. 52 to col. col. 11, l. 19 and Colburn, col. 1, l. 12 to col. 3, l. 45).

23. As per claim 18, Scheifler and Colburn teach all the limitation of claim 1 as discussed above, wherein Colburn further teaches the method comprising wherein the target object and the external object are views in a view hierarchy (Colburn, col. 1, l. 12 to col. 3, l. 45).

24. As per claim 19, Scheifler and Colburn teach all the limitation of claim 18 as discussed above, wherein Colburn further teaches the method comprising wherein a

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view has a parent calling interface, a child calling interface, and a child managing interface (Colburn, col. 6, ll. 29-52), as the hierarchal relation between parent-child is well known with the corresponding above interfaces for the parent and the child.

### **III. CLOSING COMMENTS**

#### **Conclusion**

##### **a. STATUS OF CLAIMS IN THE APPLICATION**

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i)**:

##### **a(1) CLAIMS REJECTED IN THE APPLICATION**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

##### **b. DIRECTION OF FUTURE CORRESPONDENCES**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.



**IMPORTANT NOTE**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 24, 2010  
/Chun-Kuan Lee/  
Examiner, Art Unit 2181

Chun-Kuan (Mike) Lee  
Examiner  
Art Unit 2181